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09/912,285	07/24/2001	George A. Teacherson		5196

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EXAMINER

JULES, FRANTZ F

ART UNIT PAPER NUMBER

3617

DATE MAILED: 02/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/912,285

Applicant(s)

TEACHERSON, GEORGE A.

Examiner

Frantz F. Jules

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12, 13 and 16-20 is/are rejected.
- 7) ☒ Claim(s) 11, 14 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

DETAILED ACTION

Drawings

1. The drawings are objected to because:

Figure 1 should be grouped together as shown in the supplied marked copy of the drawings or else every figure in the drawings should be labeled separately. Similar grouping is needed for figs. 2, 6, 8, 11, 17.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "S" has been used to designate both "stand" and "split stand" on page 13-14. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the recitation of "wherein said trucks have cooling fins attached for heat dissipation" in claim 7, lines 1-2 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the recitation of "means for coupling differing railcar and engine configurations together; means having differing truck configurations with standard appearance" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

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Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect may be deferred until after the examiner has considered the proposed drawing correction. Failure to timely submit the proposed drawing correction will result in the abandonment of the application.

Specification

5. The disclosure is objected to because of the following informalities:

On page 10, line 3, the phrase "clearing P" should be replaced by --clearing plate P--.

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested:

Articulated railcars having bearing and plate coupling and a method of articulation thereof.

In the abstract line 1, the word means should be deleted and replaced by --apparatus-- or an equivalent term.

Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

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Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Appropriate correction is required.

Claim Objections

6. Claims 10-20 are objected to because of the following informalities:

In claim 10, line 1, the word —the— should be added in front of the word same.

In claim 17, line 1, the word "the" should be replaced by —A—.

Claims 11-16, 19-20 are objected as being dependent upon rejected base claims 10, and 17.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-9, 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "all said elements" in line 10. There is insufficient antecedent basis for this limitation in the claim.

In claim 2, lines 1-4, the phrase "said elements disposed lower in said vertical fashion than said at least one bearing are generally placed into tension" is confusing as it is unclear what particular structure applicant is referring to.

In claim 3, lines 1-3, the phrase "said elements disposed lower in said vertical fashion than said at least one bearing have the properties of lightweight, ultra-strong materials" is confusing as it is unclear what particular structure applicant is referring to by said elements disposed lower in said vertical fashion.

In claim 20, lines 5-7, the phrase "means for coupling differing railcar and engine configurations together; means having differing truck configurations with standard appearance" is confusing as it unclear what applicant is referring to as means having differing truck configurations and means for coupling differing engine configurations together as the invention is drawn to articulated coupling system between railroad cars.

Claims 4-9 are rejected as being dependent upon a rejected base claim 1.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-2, 6, 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Krause (US 4,547,107).

Claims 1-2, 6, 8

Krause teaches all the limitations of claims 1-2, 6, 8 by showing in figs. 1-4 an articulated railcar comprising a railcar body (12c), a support plate (58A), means (58) for mounting said support plate upon said railcar body (12c) at least one set of railroad trucks (24), mounting bracket means (44) attached to said at least one set of railroad trucks (24), at least one bearing constituted by horizontal surface (42) mounted upon said mounting means, railroad couplers (16, 18). The elements being disposed in vertical fashion having said at least one set of trucks on the bottom in contact with rails (28), said mounting means (44), said at least one bearing, said support plate (58A), said means (58) for mounting said support plate and said railcar body (12c) situated on top, all in contact when said railcar is coupled to additional ones of said railcar via said couplers (16, 18), and said railcar is separably supported at the juncture of said support plate (58A) and said at least one bearing (42).

The elements disposed lower in said vertical fashion than said at least one bearing are generally placed in tension when said railcar and said support plate and said means for mounting said support plate rest their weight upon said bearing due the fact that when the railcar rests upon the bearing, the normal tendency of the load is to shift either forward or backward depending on level of flatness of the track. Also, the bearing

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surface (42) is slanted as can be seen in fig. 2 to allow for a slight shift forward of the load. Thus, the bearing mounting is normally under tension loading when the rail car is at rest or during operation.

The mounting means (44) being made to clear the support plate as when the railcar is lifted out of the truck for service the support plate will normally be separated from the bearing and therefore clear the mounting means (44).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 10, 12-13, 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krause (US 4,547,107).

Claims 10, 17-19

Krause teaches all the limitations of claims 10, 17-19 except for an articulated railcar and coupling system made by the method or process steps of placing a plate coupled to a rail car via a fastening mean, providing a bearing mounted to a mounting bracket attached to a railcar truck. Krause discloses a finished articulated railcar and coupling system comprising a plate coupled to a rail car via a fastening mean, a bearing mounted to a mounting bracket attached to a railcar truck which have been achieved by a method or process steps, see figs. 1-4. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Krause to include the use of the method or

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process steps of placing a plate coupled to a rail car via a fastening mean, providing a bearing mounted to a mounting bracket attached to a railcar truck in his advantageous articulated railcar in order to reduce manufacturing tolerance error in the railcar.

Claims 12-13

Regarding using steps of designing the structure of said means for mounting to be in tension when the weight of said railcar is placed upon said at least one bearing and said steps further including designing the structure of said means for mounting to have the properties of lightweight, ultra-strong material as recited in claims 12-13, It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Krause to include the use of steps of designing the structure of said means for mounting to be in tension when the weight of said railcar is placed upon said at least one bearing and said steps further including designing the structure of said means for mounting to have the properties of lightweight, ultra-strong material in his advantageous system, as bearing design and material selection is a common and everyday occurrence throughout the truck load bearing design art and the specific use of steps of designing the structure of said means for mounting to be in tension when the weight of said railcar is placed upon said at least one bearing and said steps further including designing the structure of said means for mounting to have the properties of lightweight, ultra-strong material would have been an obvious matter of design preference depending upon such factors as the loading imposed on the truck bearing, the yield strength requirement of the bearing mounting material, the maximum weight one is willing to achieve in truck assembly; the ordinarily skilled artisan choosing the best stress profile corresponding to

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a particular loading imposed on the truck bearing which would most optimize the cost and performance of the device for a particular application at hand, based upon the above noted common design criteria.

12. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Krause.

Claim 3

Regarding using elements below the bearing made of material having the properties of lightweight, ultra-strong material as recited in claim 3, It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Krause to include the use of materials below the bearing having the properties of lightweight, ultra-strong material in his advantageous system, as material selection is a common and everyday occurrence throughout the truck load bearing design art and the specific use of materials below the bearing having the properties of lightweight, ultra-strong material would have been an obvious matter of design preference depending upon such factors as the weight of the object to be carried by the truck bearing, the yield strength requirement of the side mounting means material; the ordinarily skilled artisan choosing the best stress profile corresponding to a particular loading imposed on the side walls which would most optimize the cost and performance of the device for a particular application at hand, based upon the above noted common design criteria.

13. Claims 7, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krause in view of Barefoot (US 5,566,795).

Claims 7, 16

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Krause teaches all the limitations of claims 7, 16 except for an articulated railcar or a method of articulation having cooling fins attached to the truck for heat dissipation. The general concept of adding cooling attached to a railcar truck for heat dissipation is well known in the art as illustrated by Barefoot which illustrates in figs. 3-4 a truck (30) having cooling fins attached to a device (74), see Fig. 4, column 7, lines 30-33. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Krause to include the use of cooling fins attached to the truck of in his advantageous articulated railcar as taught by Barefoot in order to prevent overheating of bearing and other component of the railcar truck.

Allowable Subject Matter

14. Claims 4-5, 9, 20 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. None of the references of record suggests an articulated railcar comprising mounting means with bearing, wherein said mounting means has stand, said stands having retractable bumpers in the manner defined in the instant claims 4-5. Also, None of the references of record suggests an articulated railcar comprising mounting means with bearing, railroad car couplers, wherein said couplers are mounted first upon said railcars and are equivalently mounted upon said mounting means as desired in the manner defined in the instant claim 9, 11

15. Claims 11, 14-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the

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limitations of the base claim and any intervening claims. None of the references of record suggests an articulated railcar comprising mounting means with bearing, wherein said mounting means has stands, said stands having retractable bumpers in the manner defined in the instant claims 4-5. Also, None of the references of record suggests an articulated railcar comprising mounting means with bearing, railroad car couplers, wherein said couplers are mounted first upon said railcars and are equivalently mounted upon said mounting means as desired in the manner defined in the instant claim 11.

Response to Arguments

16. Applicant's arguments filed 08/01/02 have been fully considered but they are moot in view of the new grounds of rejection.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Klein et al, Landeborg et al are cited to show related rail vehicle having cooling fins in truck.

Bedard et al, Wicks et al, Nilesen, Krause, and Abams Jr are cited to show related articulated railcar having mounting means on trucks for supporting bearings.

Forbes et al, Ehrlich et al'115 cited to show related articulated railcar having support plate mounted on the car body for articulation.

18. The papers filed on >08/01/02< (certificate of mailing dated >insert<) have not been made part of the permanent records of the United States Patent and Trademark Office (Office) for this application (37 CFR 1.52(a)) because of damage from the United States Postal Service irradiation process. The above-identified papers, however, were

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not so damaged as to preclude the USPTO from making a legible copy of such papers. Therefore, the Office has made a copy of these papers, substituted them for the originals in the file, and stamped that copy:

COPY OF PAPERS
ORIGINALLY FILED

If applicant wants to review the accuracy of the Office's copy of such papers, applicant may either inspect the application (37 CFR 1.14(d)) or may request a copy of the Office's records of such papers (*i.e.*, a copy of the copy made by the Office) from the Office of Public Records for the fee specified in 37 CFR 1.19(b)(4). Please do **not** call the Technology Center's Customer Service Center to inquiry about the completeness or accuracy of Office's copy of the above-identified papers, as the Technology Center's Customer Service Center will **not** be able to provide this service.

If applicant does not consider the Office's copy of such papers to be accurate, applicant must provide a copy of the above-identified papers (except for any U.S. or foreign patent documents submitted with the above-identified papers) with a statement that such copy is a complete and accurate copy of the originally submitted documents. If applicant provides such a copy of the above-identified papers and statement within **THREE MONTHS** of the mail date of this Office action, the Office will add the original mailroom date and use the copy provided by applicant as the permanent Office record of the above-identified papers in place of the copy made by the Office. Otherwise, the Office's copy will be used as the permanent Office record of the above-identified papers (*i.e.*, the Office will use the copy of the above-identified papers made by the Office for examination and all other purposes). This three-month period is not extendable.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frantz F. Jules whose telephone number is (703) 308-8780. The examiner can normally be reached on Monday-Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph S. Morano can be reached on (703) 308-0230. The fax phone numbers for the organization where this application or proceeding is assigned are (703)

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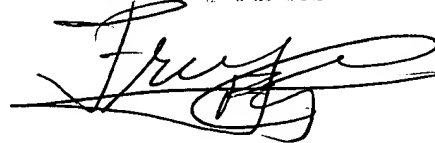
305-7687 for regular communications and (703) 305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

Frantz F. Jules
Examiner
Art Unit 3617

FFJ

January 30, 2003

FRANTZ F. JULES
PATENT EXAMINER


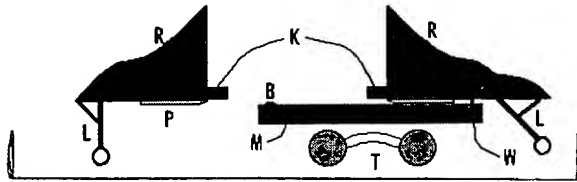


Fig. 1

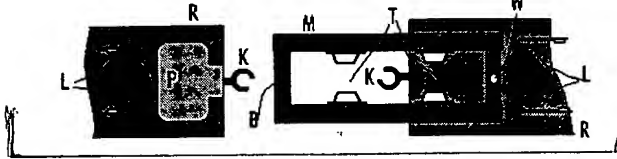


Fig. 2

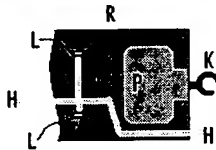


Fig. 3

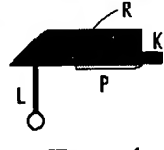


Fig. 4

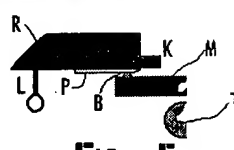


Fig. 5

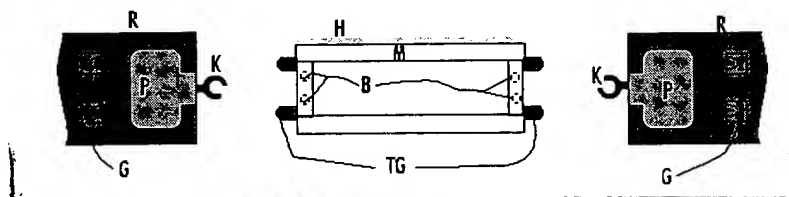


Fig. 6

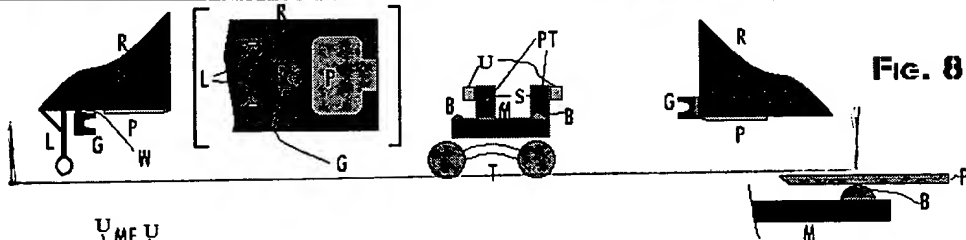


Fig. 8

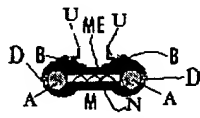


Fig. 9



Fig. 10

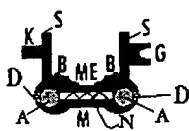


Fig. 11

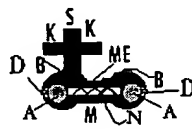


Fig. 12

Fig. 13

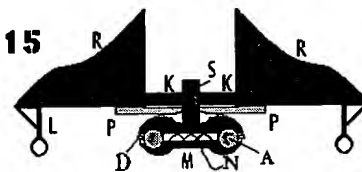


Fig. 14

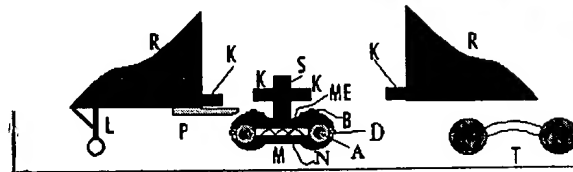


Fig. 15

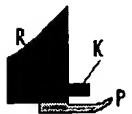


Fig. 16



Fig. 17

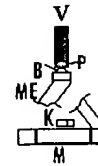


Fig. 18



Fig. 19



Fig. 20



Fig. 21